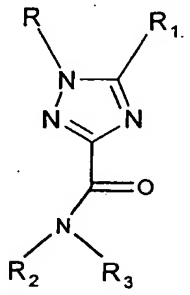
Claims

1. A method of treating disorders involving CB_1 cannabinoid neurotransmission such as psychosis, anxiety, depression, attention deficits, memory disorders, cognitive disorders, appetite disorders, obesity, addiction, appetence, drug dependence, neurodegenerative disorders, dementia, dystonia, muscle spasticity, tremor, epilepsy, multiple sclerosis, traumatic brain injury, stroke, Parkinson's disease, Alzheimer's disease, epilepsy, Huntington's disease, Tourette's syndrome, cerebral ischaemia, cerebral apoplexy, craniocerebral trauma, stroke, spinal cord injury, neuroinflammatory disorders, plaque sclerosis, viral encephalitis, demyelinisation related disorders, as well as for the treatment of pain disorders, including neuropathic pain disorders, septic shock, glaucoma, diabetes, cancer, emesis, nausea, gastrointestinal disorders, gastric ulcers, diarrhoea and cardiovascular disorders, characterized in that for the preparation of a pharmaceutical composition for the treatment of said disorders a compound of formula (I) is used



(I)

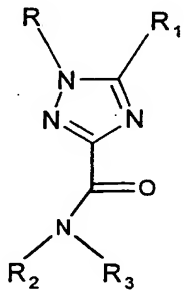
wherein

- R and R_1 independently represent a phenyl, naphtyl, thienyl, pyridyl, pyrimidyl, pyrazinyl, pyridazinyl or triazinyl group, which groups may be substituted with 1-4 substituents X, which can be the same or different, from the group branched or unbranched (C_{1-3})-alkyl or alkoxy, hydroxy, halogen, trifluoromethyl, trifluoromethylthio, trifluoromethoxy, nitro, amino, mono- or dialkyl (C_{1-2})-amino, mono- or dialkyl (C_{1-2})-amido, (C_{1-3})-alkoxycarbonyl, trifluoromethylsulfonyl, sulfamoyl, (C_{1-3})-alkylsulfonyl, carboxyl, cyano, carbamoyl, (C_{1-3})-dialkylaminosulfonyl, (C_{1-3})-monoalkylamino-sulfonyl and acetyl,
- R_2 represents a hydrogen atom or a branched or unbranched C_{1-8} alkyl or C_{1-8} cycloalkyl-alkyl group or a phenyl, benzyl or phenethyl group which aromatic rings may be substituted with 1-4 substituents X,

wherein X has the meaning as indicated above, or R_2 represents a pyridyl or thienyl group,

- R_3 represents branched or unbranched C_{1-8} alkyl, C_{1-8} alkoxy,C_{3-8} cycloalkyl, C_{5-10} bicycloalkyl, C_{6-10} tricycloalkyl, C_{3-8} alkenyl, C_{5-8} cycloalkenyl, which groups may optionally contain one or more heteroatoms from the group (O, N, S), which groups may be substituted with a hydroxy group, an ethynyl group or 1-3 fluoro atoms, or R_3 represents a phenyl, benzyl or phenethyl group which aromatic rings may be substituted with 1-4 substituents X, wherein X has the meaning as indicated above, or R_3 represents a pyridyl, pyrimidyl, pyrazinyl, pyridazinyl, triazinyl or thienyl group which heteroaromatic rings may be substituted with 1-2 substituents X, wherein X has the meaning as indicated above, or R_3 represents a group NR_4R_5 wherein
  R_4 and R_5, together with the nitrogen atom to which they are bonded, form a saturated or unsaturated, monocyclic or bicyclic, heterocyclic moiety having 4 to 10 ring atoms, which heterocyclic group contains one or two heteroatoms from the group N, O or S, which heteroatoms can be the same or different, which heterocyclic moiety may be substituted with a branched or unbranched C_{1-3} alkyl, hydroxy or trifluoromethyl group or a fluoro atom, or
  R_2 and R_3, together with the nitrogen atom to which they are bonded, form a saturated or unsaturated, monocyclic or bicyclic, heterocyclic moiety having 4 to 10 ring atoms, which heterocyclic group contains one or two heteroatoms from the group N, O or S, which heteroatoms can be the same or different, which heterocyclic moiety may be substituted with a branched or unbranched C_{1-3} alkyl, hydroxy, piperidinyl or trifluoromethyl group or a fluoro atom,
  and prodrugs, stereoisomers and salts thereof.

2. Compounds of the general formula (I)



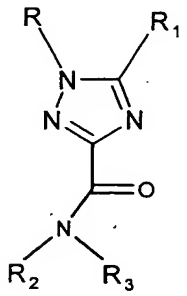
(I)

wherein

- R and R_1 have the meanings as given in claim 1,
- R_2 represents a hydrogen atom or a branched or unbranched C_{1-8} alkyl group
- R_3 represents branched or unbranched C_{2-8} alkoxy, C_{3-8} cycloalkyl, C_{5-10} bicycloalkyl, C_{6-10} tricycloalkyl, C_{4-8} alkenyl, C_{5-8} cycloalkenyl, which groups may optionally contain one or more heteroatoms from the group (O, N, S), which groups may optionally be substituted with a hydroxy group or 1-3 fluoro atoms, or R_3 represents a C_{3-8} trifluoroalkyl or C_{2-8} fluoroalkyl group, or R_3 represents a benzyl or phenethyl group which aromatic rings may be substituted with 1-4 substituents X, wherein X has the meaning as given in claim 1, or R_3 represents a 3-pyridyl, 4-pyridyl, pyrimidyl, pyrazinyl, pyridazinyl, triazinyl or thienyl group which heteroaromatic rings may be substituted with 1-2 substituents X, wherein X has the meaning as given in claim 1, or R_3 represents a group NR_4R_5 wherein
  R_4 and R_5 together with the nitrogen atom to which they are bonded form a saturated or unsaturated, monocyclic or bicyclic, heterocyclic moiety having 4 to 10 ring atoms, which heterocyclic group contains one or two heteroatoms from the group N, O or S, which heteroatoms can be the same or different, which heterocyclic moiety may be substituted with a branched or unbranched C_{1-3} alkyl, hydroxy or trifluoromethyl group or a fluoro atom, or
- R_2 and R_3, together with the nitrogen atom to which they are bonded, form a saturated or unsaturated, monocyclic or bicyclic, heterocyclic moiety having 4 to 10 ring atoms, which heterocyclic group contains one or two heteroatoms from the group N, O or S, which heteroatoms can be the same or different, which heterocyclic moiety may be substituted with a branched or unbranched C_{1-3} alkyl, hydroxy, piperidinyl or trifluoromethyl group or a fluoro atom, with the proviso that this heterocyclic moiety is not an unsubstituted piperidinyl or unsubstituted morpholinyl group or 2,2,6,6-tetraalkylpiperidinyl group,

and prodrugs, stereoisomers and salts thereof.

3. Compounds of the general formula (I)



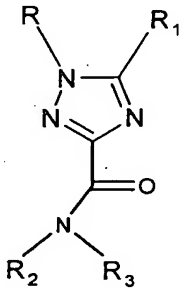
(I)

wherein

- R and R_1 independently represent a phenyl, naphtyl, thienyl, pyridyl, pyrimidyl, pyrazinyl, pyridazinyl or triazinyl group, which groups are substituted with 1-4 substituents X, wherein X has the meaning as given in claim 1,
- R_2 and R_3 have the meanings as given in claim 2,

and prodrugs, stereoisomers and salts thereof.

4. Compounds of the general formula (I)



(I)

wherein

R and R_1 independently represent a phenyl group which phenyl groups are substituted with 1-4 substituents which can be the same or different, from the group methyl, methoxy, halogen, trifluoromethyl or cyano or R and R_1 independently represent a phenyl, thienyl or pyridyl group, which phenyl group is substituted with 1-4 substituents, which can be the same or different, from the group methyl, methoxy, halogen, trifluoromethyl or cyano,

- R_2 has the meaning as given in claim 2,
- R_3 represents a group NR_4R_5 wherein

R_4 and R_5 together with the nitrogen atom to which they are bonded form a saturated or unsaturated, monocyclic or bicyclic, heterocyclic moiety having 4 to 10 ring atoms, which heterocyclic group contains one or two heteroatoms from the group N, O or S, which heteroatoms can be the same or different, which heterocyclic moiety may be substituted with a branched or unbranched C_{1-3} alkyl, hydroxy or trifluoromethyl group or a fluoro atom,
and prodrugs, stereoisomers and salts thereof.

5. Pharmaceutical compositions containing a pharmacologically active amount of at least one compound of one of the claims 1-4 as an active ingredient.

6. Use of a compound of one of the claims 1-4 for the preparation of a pharmaceutical composition for the treatment of disorders involving cannabinoid neurotransmission.

7. Use as in claim 6 characterised in that said disorders are: psychosis, anxiety, depression, attention deficits, memory disorders, cognitive disorders, appetite disorders, obesity, addiction, appetence, drug dependence, neurodegenerative disorders, dementia, dystonia, muscle spasticity, tremor, epilepsy, multiple sclerosis, traumatic brain injury, stroke, Parkinson's disease, Alzheimer's disease, epilepsy, Huntington's disease, Tourette's syndrome, cerebral ischaemia, cerebral apoplexy, craniocerebral trauma, stroke, spinal cord injury, neuroinflammatory disorders, plaque sclerosis, viral encephalitis, demyelinisation related disorders, as well as for the treatment of pain disorders, including neuropathic pain disorders, septic shock, glaucoma, diabetes, cancer, emesis, nausea, gastrointestinal disorders, gastric ulcers, diarrhoea and cardiovascular disorders.